

ABSTRACT OF THE DISCLOSURE

5 A flow monitor that is purely optical and non-invasive and does not possess any significant
obstruction to the flow. It creates no significant pressure drop and no pulsed pressure waves
in the patient's airway and can be placed close to the patient, it is not sensitive to gas
composition and contamination, it is easy to clean, because it uses a disposable or reusable
flow measurement cuvette, and it is more accurate, rugged and reliable than existing sensors
on the market. Fluid flow is determined by optically monitoring the time of travel of a
10 disturbance in the fluid flow. In one embodiment, the disturbance is caused by heating the
fluid and in another embodiment, the disturbance in air flow is caused by injecting minute
drops of water into the flowing air.